

**Notice of Allowability**

Application No.

10/088,202

Examiner

VANESSA L. FORD

Applicant(s)

PARK ET AL.

Art Unit

1645

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/29/09.
2. ☒ The allowed claim(s) is/are 1, 2, 6, 13, 14 and 18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 2/13/10.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

/Vanessa L. Ford/  
Primary Examiner, Art Unit 1645

***Allowance***

1. Applicant's amendment filed October 29, 2009 is acknowledged.

Claims 1-11, 13-15 and 18 have been amended. Claim 12 has been canceled.

Claims 3-5, 7-11, 15-17 and 19-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on March 21, 2005.

Claims 1-2, 6, 13-14 and 18 are under examination.

2. All objections and rejections of record are withdrawn.

***Examiner's Amendment***

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph Kim on February 13, 2010.

4. The application has been amended as follows:

In the claims:

Amended claims are as follows:

1. (currently amended) A detoxified and immunologically active heat-labile enterotoxin protein of *Escherichia coli*, wherein the serine residue at position 63 is substituted with tyrosine or amino acid residues at positions 110 and 112 are deleted.
2. (currently amended) A detoxified and immunologically active heat-labile enterotoxin protein having ~~an~~ the amino acid sequence of SEQ ID NO.3.
3. (canceled)
4. (canceled)
5. (canceled)
6. (currently amended) A detoxified and immunologically active heat-labile enterotoxin protein having ~~an~~ the amino acid sequence of SEQ ID NO.5.
7. (canceled)
8. (canceled)
9. (canceled)
10. (canceled)
11. (canceled)
15. (canceled)
16. (canceled)
17. (canceled)
19. (canceled)
20. (canceled)

***Examiner's Reasons for Allowance***

5. The prior art neither teaches or discloses a detoxified and immunologically active heat-labile enterotoxin protein of *Escherichia coli* wherein serine residue at position 63 is substituted with tyrosine or amino acid residues at positions 110 and 112 are deleted. The prior art neither teaches nor discloses the amino acid sequences as set forth in SEQ ID NOs. 3 and 5.

***Status of Claims***

6. Claims 1-2, 6, 13-14 and 18 are allowed.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VANESSA L. FORD whose telephone number is (571)272-0857. The examiner can normally be reached on 9 am- 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Mondesi can be reached on (571) 272-0756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vanessa L. Ford/  
Primary Examiner, Art Unit 1645  
February 16, 2010